

molecular weight in the range of about 4,000 to about 10,000 daltons, (2) a Yin-Wessler of at least 40, and (3) a ratio of Yin-Wessler to USP titer in the range of 3 to 5, which mixture of fractions have improved antithrombotic activity in vivo which is higher than that of heparin and a whole anticoagulation activity lower than that of heparin, and the physiologically acceptable salts thereof.

138. The heparinic mucopolysaccharides of claim 137 in which the lower molecular fractions have a USP titer less than about 10 units per mg.

H' 139. The heparinic mucopolysaccharide of claim 137 in which fractions have a USP titer of about 45 units per mg, a Yin-Wessler titer of about 160 units/mg and a ratio of Yin-Wessler to USP titer of about 3.55.

140. The heparinic mucopolysaccharide of claim 137 wherein the molecular weight is not in excess of about 8,000 daltons.

141. The heparinic mucopolysaccharides of claim 137 in which fractions have a ratio of Yin-Wessler to USP titer which is at least 10.

142. The heparinic mucopolysaccharides of claim 137 in which fractions have a ratio of Yin-Wessler to USP titer higher than 18, and the Yin-Wessler is at least 900 units per mg.

143. The heparinic mucopolysaccharides of claim 137 in which fractions have a Yin-Wessler to USP titer higher than 65 and a Yin-Wessler of at least 1,300 units per mg.

144. The heparinic mucopolysaccharides of claim 137 wherein the fractions have a USP titer not exceeding about 13 units per mg and a Yin-Wessler titer in the range of about 135 to about 160 units per mg.

H' 145. The heparinic mucopolysaccharides of claim 144 wherein the fractions have a ratio of a Yin-Wessler to USP titer is in the range of about 13 to about 16.

146. The heparinic mucopolysaccharides of claim 137 wherein the fractions have a USP titer that does not exceed about 6 units per mg, a Yin-Wessler titer not less than about 44 units per mg and the ratio of Yin-Wessler to USP titers is about 9.

147. The heparinic mucopolysaccharides of claim 137 in which the lower molecular weight fractions have specific affinity for antithrombin III.

148. The heparinic mucopolysaccharides of claim 137 in which fractions have 8 to 12 monosaccharide units.

149. The heparinic mucopolysaccharides of claim 137 wherein fractions have a molecular weight range of about 2,000 to about 8000.